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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,208	12/15/2003	Maurizio Selva	38534/GM/cd	4775

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EXAMINER
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SHIAO, REI TSANG

ART UNIT	PAPER NUMBER
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1626

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/734,208

Applicant(s)

SELVA ET AL.

Examiner

Robert Shiao

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on responses filed on 03/31, 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 27 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>06/14/04</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This application claims benefit of the foreign application:

ITALY PD2002A000325 with a filing date 12/18/2002. However, should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, a translation of the foreign application should be submitted under 37 CFR 1.55 in reply to this action. The foreign priority has not been granted herein.

2. Amendment of claim 1 in the amendment filed on March 31, 2006, is acknowledged. Claims 1-28 are pending in the application.

3. Amendment of claims 2-26 does not compile the Patent Rule 1.121(C).

Amendments to a claim must be made by rewriting the entire claim with all changes (e.g., additions and deletions) as indicated in this subsection, except when the claim is being canceled. Each amendment document that includes a change to an existing claim, cancellation of an existing claim or addition of a new claim, must include a complete listing of all claims ever presented, including the text of all pending and withdrawn claims, in the application. The claim listing, including the text of the claims, in the amendment document will serve to replace all prior versions of the claims, in the application. In the claim listing, the status of every claim must be indicated after its claim number by using one of the following identifiers in a parenthetical expression: (Original), (Currently amended), (Canceled), (Withdrawn), (Previously presented), (New), and (Not entered). In the instant case, the identifiers of claims 2-26 do not compile the Patent Rule.

***Information Disclosure Statement***

4. Applicant's Information Disclosure Statement, filed on June 14, 2004, has been considered. Please refer to Applicant's copy of the 1449 submitted herein.

***Responses to Election/Restriction***

5. Applicant's election of Group I claims 1-26 in the reply filed on March 31, 2006, is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 27-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention.

The requirement is still deemed proper and is therefore made **FINAL**.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, page 14, line 7 or 9, or page 15, line 19, recites the limitation "comprising", are indefinite because it is recited as a variable R or a catalyst faujasite and use the term "comprising" which is open-ended. A compound having limitation (i.e., variable R or catalyst) cannot use open-ended language when defining the parameters

of the compound. By deleting "comprising" and inserting "consisting of" the rejection would be overcome. Moreover, it is unclear what the limitation "comprising 3 to 7 carbon atoms" is. Is it an unsaturated carbon chain or the ally moiety having 3 to 7 carbon atoms? Clarification is required, see page 4, lines 15-23 of the specification. Dependent claims 2-26, drawn to further limitation of the instant reaction conditions, i.e., temperature, are also rejected along with claim 1 under 35 U.S.C. 112, second paragraph.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-26 are rejected under 35 U.S.C. 102(a) as being anticipated by Selva et al. publication, Journal of Organic Chemistry, 2003, 68(19): 7374-7378.

Applicants claim a process of making mono-N-substituted anilines compounds of formula (I) by reacting aniline compounds of formula (II) with organic carbonate compounds of formula (III) and (IV) in the presence of catalyst (i.e., Y-faujasite exchanged with alkaline metal Na) and solvent (i.e., organic carbonate or a co-solvent), see claim 1, 7 and 24. Dependent claims 2-26 of claim 1 are drawn to claims of having further limitation of reaction conditions (i.e., temperature) or the starting materials (i.e., diethyl carbonate).

Selva et al. disclose a process of making mono-N-substituted anilines compounds by reacting aniline compounds with organic carbonate compounds of in the presence of catalyst (i.e., Na-Y) and solvent (i.e., a co-solvent DME), see Schemes 1-4 on pages 7374-7377. Therefore the processes of Selva et al. meet the required elements of the instant claims, i.e., starting materials (i.e., aniline compounds or organic carbonate) and reaction conditions (i.e., solvent, co-solvent, or catalyst). Dependent claims 2-26 of claim 1 are also rejected along with claim 1 under 35 U.S.C. 102(a).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

“Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Also see M.P.E.P. 2113.

9. Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selva et al. publication, Journal of Organic Chemistry, 2003, 68(19): 7374-7378.

Applicants claim a process of making mono-N-substituted anilines compounds of formula (I) by reacting aniline compounds of formula (II) with organic carbonate compounds of formula (III) and (IV) in the presence of catalyst (i.e., Y-faujasite exchanged with alkaline metal Na) and solvent (i.e., organic carbonate or a co-solvent),

Art Unit: 1626

see claim 1,7 and 24. Dependent claims 2-26 of claim 1 are drawn to claims of having further limitation of reaction conditions (i.e., temperature) or the starting materials (i.e., diethyl carbonate). The processes are found on the pages 2-15 of the specification.

**Determination of the scope and content of the prior art (MPEP §2141.01)**

Selva et al. disclose a process of making mono-N-substituted anilines compounds by reacting aniline compounds with organic carbonate compounds in the presence of catalyst (i.e., Na-Y) and solvent (i.e., a co-solvent DME), see Schemes 1-4 on pages 7374-7377.

**Determination of the difference between the prior art and the claims (MPEP §2141.02)**

The difference between instant claims and Selva et al. processes is that the instant variable of formula (I) represents a linear or branched saturated carbon chain from 1 to 7 carbon atoms (i.e., methyl, ethyl or allyl), while Selva et al. represents methyl or ethyl at the same position.

**Finding of prima facie obviousness-rational and motivation (MPEP §2142-2143)**

One having ordinary skill in the art would find the claims 1-26 prima facie obvious because one would be motivated to employ the processes of Selva et al. to obtain instant claimed processes, wherein mono-N-substituted anilines are prepared by



Art Unit: 1626

reacting reacting aniline compounds of formula (II) with organic carbonate compounds of formula (III) and (IV) in the presence of catalyst (i.e., Y-faujasite exchanged with alkaline metal Na) and solvent (i.e., organic carbonate or a co-solvent), see claim 1, 7 and 24. Dependent claims 2-26 of claim 1 are also rejected along with claim 1 under 35 U.S.C. 103(a).

The motivation to make the claimed compounds derives from the expectation that the instant claimed processes derived from known Selva et al. processes would possess similar yields to that which is claimed in the reference.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Shiao whose telephone number is (571) 272-0707. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on (571) 272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 1626

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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May 09, 2006